

Parent Child Home Program

Benefit-cost estimates updated December 2015. Literature review updated April 2012.

Current estimates replace old estimates. Numbers will change over time as a result of model inputs and monetization methods.

The WSIPP benefit-cost analysis examines, on an apples-to-apples basis, the monetary value of programs or policies to determine whether the benefits from the program exceed its costs. WSIPP's research approach to identifying evidence-based programs and policies has three main steps. First, we determine "what works" (and what does not work) to improve outcomes using a statistical technique called meta-analysis. Second, we calculate whether the benefits of a program exceed its costs. Third, we estimate the risk of investing in a program by testing the sensitivity of our results. For more detail on our methods, see our [technical documentation](#).

Program Description: The Parent-Child Home Program (<http://www.parent-child.org/>) is targeted at two- and three- year olds whose parents have a limited education or who have other obstacles to educational success. The program involves twice weekly, half-hour visits from trained paraprofessionals over a period of two years. Each week, the visitor brings a new toy or book which she uses to demonstrate verbal interaction techniques and encourage learning through play.

Benefit-Cost Summary

Program benefits		Summary statistics	
Participants	\$2,212	Benefit to cost ratio	\$0.61
Taxpayers	\$2,438	Benefits minus costs	(\$2,233)
Other (1)	\$1,008	Probability of a positive net present value	44 %
Other (2)	(\$2,137)		
Total	\$3,522		
Costs	(\$5,755)		
Benefits minus cost	(\$2,233)		

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2014). The economic discount rates and other relevant parameters are described in our [technical documentation](#).

Detailed Monetary Benefit Estimates

Source of benefits	Benefits to				
	Participants	Taxpayers	Other (1)	Other (2)	Total benefits
From primary participant					
Labor market earnings (test scores)	\$2,236	\$954	\$1,109	\$0	\$4,299
K-12 grade repetition	\$0	\$85	\$0	\$42	\$127
K-12 special education	\$0	\$1,306	\$0	\$652	\$1,957
Health care (educational attainment)	(\$25)	\$93	(\$101)	\$47	\$13
Adjustment for deadweight cost of program	\$2	\$1	\$0	(\$2,877)	(\$2,875)
Totals	\$2,212	\$2,438	\$1,008	(\$2,137)	\$3,522

We created the two "other" categories to report results that do not fit neatly in the "participant" or "taxpayer" perspectives. In the "Other (1)" category we include the benefits of reductions in crime victimization, the economic spillover benefits of improvement in human capital outcomes, and the benefits from private or employer-paid health insurance. In the "Other (2)" category we include estimates of the net changes in the value of a statistical life and net changes in the deadweight costs of taxation.

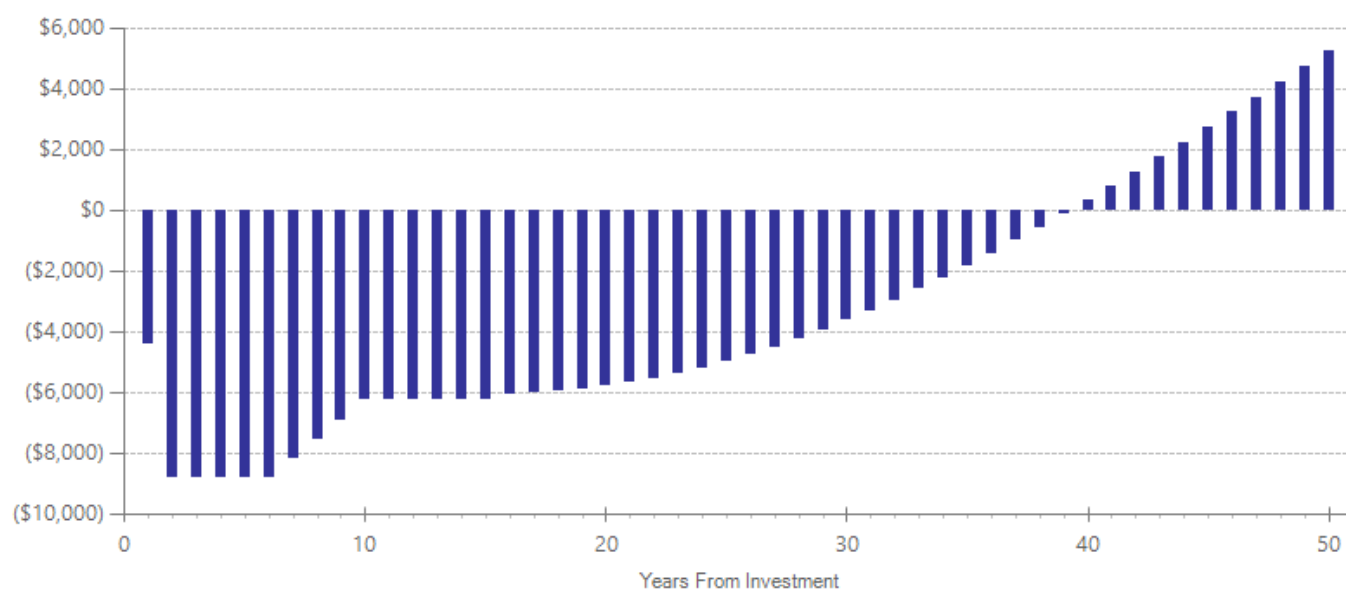
Detailed Cost Estimates

	Annual cost	Program duration	Year dollars	Summary statistics	
Program costs	\$2,800	2	2011	Present value of net program costs (in 2014 dollars)	(\$5,755)
Comparison costs	\$0	1	2011	Uncertainty (+ or - %)	10 %

Average annual cost per family provided by The Parent-Child Home Program's National Center, June, 2011.

The figures shown are estimates of the costs to implement programs in Washington. The comparison group costs reflect either no treatment or treatment as usual, depending on how effect sizes were calculated in the meta analysis. The uncertainty range is used in Monte Carlo risk analysis, described in our technical documentation.

Cumulative Net Cash Flows Over Time (Non-Discounted Dollars)



Meta-Analysis of Program Effects

Outcomes measured	Primary or secondary participant	No. of effect sizes	Treatment N	Unadjusted effect size (random effects model)		Adjusted effect sizes and standard errors used in the benefit-cost analysis					
						First time ES is estimated			Second time ES is estimated		
				ES	p-value	ES	SE	Age	ES	SE	Age
Test scores	Primary	4	211	0.224	0.162	0.139	0.120	4	0.029	0.132	17
K-12 grade repetition	Primary	1	74	-0.285	0.421	-0.103	0.341	8	-0.103	0.341	17
K-12 special education	Primary	1	85	-0.626	0.021	-0.225	0.256	8	-0.225	0.256	17

Citations Used in the Meta-Analysis

- Levenstein, P., O'Hara, J., & Madden, J. (1983). The Mother-Child Home Program of the Verbal Interaction Project. In The Consortium for Longitudinal Studies (Contributors), *As the twig is bent . . . : Lasting effects of preschool programs* (pp. 237-263). Hillsdale, NJ: Lawrence Erlbaum Associates.
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- Madden, J., O'Hara, J., & Levenstein, P. (1984). Home again: Effects of the Mother-Child Home Program on mother and child. *Child Development, 55*(2), 636-647.
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